RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 10/081,864A

Source: 1FW16

Date Processed by STIC: 1/4/05

ENTERED

IFW16

RAW SEQUENCE LISTING   DATE: 01/04/2005
PATENT APPLICATION: US/10/081,864A   TIME: 12:47:47

Input Set : **D:\seqlist.txt**
Output Set: **N:\CRF4\01042005\J081864A.raw**

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 4 <110> APPLICANT: Lukyanov, Sergey
 5        Lukyanov, Konstantin
 6        Yanushevich, Yuriy
 7        Savistky, Alexandr
 8        Fradkov, Arcady
10 <120> TITLE OF INVENTION: Non Aggregating Fluorescent Proteins and
11        Methods for Using the Same
14 <130> FILE REFERENCE: CLON-067
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C--> 16 <140> **CURRENT APPLICATION NUMBER: US/10/081,864A**
C--> 16 <141> **CURRENT FILING DATE: 2002-02-20**
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16 <150> PRIOR APPLICATION NUMBER: 10/006,922
17 <151> PRIOR FILING DATE: 2001-12-04
19 <150> PRIOR APPLICATION NUMBER: 60/270,983
20 <151> PRIOR FILING DATE: 2001-02-21
22 <160> NUMBER OF SEQ ID NOS: 31
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 687
28 <212> TYPE: DNA
29 <213> ORGANISM: Anemonia majano
31 <400> SEQUENCE: 1
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33 tgtgtcaatg ggcattactt taccgtcaaa ggtgaaggca acgggaagcc atacgaaggg 120
34 acgcagacct cgacttttaa agtcaccatg gccaacggtg ggcccctgc attctccttt 180
35 gacatactat ctacagtgtt caagtatgga aatcgatgct ttactgcgta tcctaccagt 240
36 atgcccgact atttcaaaca agcatttcct gacggaatgt catatgaaag gacttttacc 300
37 tatgaagatg gaggagttgc tacagccagt tgggaaataa gccttaaagg caactgcttt 360
38 gagcacaaat ccacgtttca tggagtgaac tttcctgctg atggacctgt gatggcgaag 420
39 atgacaactg gttgggaccc atcttttgag aaaatgactg tctgcgatgg aatattgaag 480
40 ggtgatgtca ccgcgttcct catgctgcaa ggaggtggca attacagatg ccaattccac 540
41 acttcttaca agacaaaaaa accggtgacg atgccaccaa accatgcggt ggaacatcgc 600
42 attgcgagga ccgaccttga caaaggtggc aacagtgttc agctgacgga gcacgctgtt 660
43 gcacatataa cctctgttgt cccttttc                                      687
45 <210> SEQ ID NO: 2
46 <211> LENGTH: 229
47 <212> TYPE: PRT
48 <213> ORGANISM: Anemonia majano
50 <400> SEQUENCE: 2
51 Met Ala Leu Ser Asn Lys Phe Ile Gly Asp Asp Met Lys Met Thr Tyr
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53 His Met Asp Gly Cys Val Asn Gly His Tyr Phe Thr Val Lys Gly Glu
54              20                  25                  30
55 Gly Asn Gly Lys Pro Tyr Glu Gly Thr Gln Thr Ser Thr Phe Lys Val
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Input Set : **D:\seqlist.txt**
Output Set: **N:\CRF4\01042005\J081864A.raw**

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56          35                    40                    45
57 Thr Met Ala Asn Gly Gly Pro Leu Ala Phe Ser Phe Asp Ile Leu Ser
58      50                    55                    60
59 Thr Val Phe Lys Tyr Gly Asn Arg Cys Phe Thr Ala Tyr Pro Thr Ser
60 65                    70                    75                    80
61 Met Pro Asp Tyr Phe Lys Gln Ala Phe Pro Asp Gly Met Ser Tyr Glu
62                    85                    90                    95
63 Arg Thr Phe Thr Tyr Glu Asp Gly Gly Val Ala Thr Ala Ser Trp Glu
64                    100                   105                   110
65 Ile Ser Leu Lys Gly Asn Cys Phe Glu His Lys Ser Thr Phe His Gly
66          115                   120                   125
67 Val Asn Phe Pro Ala Asp Gly Pro Val Met Ala Lys Met Thr Thr Gly
68      130                   135                   140
69 Trp Asp Pro Ser Phe Glu Lys Met Thr Val Cys Asp Gly Ile Leu Lys
70 145                   150                   155                   160
71 Gly Asp Val Thr Ala Phe Leu Met Leu Gln Gly Gly Gly Asn Tyr Arg
72                    165                   170                   175
73 Cys Gln Phe His Thr Ser Tyr Lys Thr Lys Lys Pro Val Thr Met Pro
74                    180                   185                   190
75 Pro Asn His Ala Val Glu His Arg Ile Ala Arg Thr Asp Leu Asp Lys
76          195                   200                   205
77 Gly Gly Asn Ser Val Gln Leu Thr Glu His Ala Val Ala His Ile Thr
78      210                   215                   220
79 Ser Val Val Pro Phe
80 225
83 <210> SEQ ID NO: 3
84 <211> LENGTH: 693
85 <212> TYPE: DNA
86 <213> ORGANISM: Zoanthus sp.
88 <400> SEQUENCE: 3
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90 tgcgtcgatg gacataaatt tgtgatcacg ggagagggca ttggatatcc gttcaaaggg 120
91 aaacaggcta ttaatctgtg tgtggtcgaa ggtggaccat tgccatttgc cgaagacata 180
92 ttgtcagctg cctttatgta cggaaacagg gttttcactg aatatcctca agacatagct 240
93 gactatttca agaactcgtg tcctgctggt tatacatggg acaggtcttt tctctttgag 300
94 gatggagcag tttgcatatg taatgcagat ataacagtga gtgttgaaga aaactgcatg 360
95 tatcatgagt ccaaatttta tggagtgaat tttcctgctg atggacctgt gatgaaaaag 420
96 atgacagata actgggagcc atcctgcgag aagatcatac cagtacctaa gcaggggata 480
97 ttgaaagggg atgtctccat gtacctcctt ctgaaggatg gtgggcgttt acggtgccaa 540
98 ttcgacacag tttacaaagc aaagtctgtg ccaagaaaga tgccggactg gcacttcatc 600
99 cagcataagc tcacccgtga agaccgcagc gatgctaaga tcagaaatgc atctgaca 660
100 gaacatgcta ttgcatccgg atctgcattg ccc                              693
102 <210> SEQ ID NO: 4
103 <211> LENGTH: 231
104 <212> TYPE: PRT
105 <213> ORGANISM: Zoanthus sp.
107 <400> SEQUENCE: 4
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109 1                    5                    10                   15
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110 Arg Met Glu Gly Cys Val Asp Gly His Lys Phe Val Ile Thr Gly Glu
111             20              25                  30
112 Gly Ile Gly Tyr Pro Phe Lys Gly Lys Gln Ala Ile Asn Leu Cys Val
113         35              40                  45
114 Val Glu Gly Gly Pro Leu Pro Phe Ala Glu Asp Ile Leu Ser Ala Ala
115     50              55                  60
116 Phe Asn Tyr Gly Asn Arg Val Phe Thr Glu Tyr Pro Gln Asp Ile Ala
117 65                  70                  75                  80
118 Asp Tyr Phe Lys Asn Ser Cys Pro Ala Gly Tyr Thr Trp Asp Arg Ser
119             85                  90                  95
120 Phe Leu Phe Glu Asp Gly Ala Val Cys Ile Cys Asn Ala Asp Ile Thr
121             100                 105                 110
122 Val Ser Val Glu Glu Asn Cys Met Tyr His Glu Ser Lys Phe Tyr Gly
123         115                 120                 125
124 Val Asn Phe Pro Ala Asp Gly Pro Val Met Lys Lys Met Thr Asp Asn
125     130                 135                 140
126 Trp Glu Pro Ser Cys Glu Lys Ile Ile Pro Val Pro Lys Gln Gly Ile
127 145                 150                 155                 160
128 Leu Lys Gly Asp Val Ser Met Tyr Leu Leu Leu Lys Asp Gly Gly Arg
129             165                 170                 175
130 Leu Arg Cys Gln Phe Asp Thr Val Tyr Lys Ala Lys Ser Val Pro Arg
131             180                 185                 190
132 Lys Met Pro Asp Trp His Phe Ile Gln His Lys Leu Thr Arg Glu Asp
133         195                 200                 205
134 Arg Ser Asp Ala Lys Asn Gln Lys Trp His Leu Thr Glu His Ala Ile
135     210                 215                 220
136 Ala Ser Gly Ser Ala Leu Pro
137 225                 230
140 <210> SEQ ID NO: 5
141 <211> LENGTH: 865
142 <212> TYPE: DNA
143 <213> ORGANISM: Zoanthus sp.
145 <400> SEQUENCE: 5
146 gagttgagtt tctcgacttc agttgtatca attttggggc atcaagcgat ctattttcaa 60
147 catggctcat tcaaagcacg gtctaaaaga agaaatgaca atgaaatacc acatggaagg 120
148 gtgcgtcaac ggacataaat ttgtgatcac gggcgaaggc attggatatc cgttcaaagg 180
149 gaaacagact attaatctgt gtgtgatcga agggggacca ttgccatttt ccgaagacat 240
150 attgtcagct ggctttaagt acggagacag gattttcact gaatatcctc aagacatagt 300
151 agactatttc aagaactcgt gtcctgctgg atatacatgg ggcaggtctt ttctctttga 360
152 ggatggagca gtctgcatat gcaatgtaga tataacagtg agtgtcaaag aaaactgcat 420
153 ttatcataag agcatattta atggaatgaa ttttcctgct gatggacctg tgatgaaaaa 480
154 gatgacaact aactgggaag catcctgcga agatcatg ccagtaccta agcaggggat 540
155 actgaaaggg gatgtctcca tgtacctcct tctgaaggat ggtgggcgtt accggtgcca 600
156 gttcgacaca gtttacaaag caaagtctgt gccaagtaag atgccggagt ggcacttcat 660
157 ccagcataag ctcctccgtg aagaccgcag cgatgctaag aatcagaagt ggcagctgac 720
158 agagcatgct attgcattcc cttctgcctt ggcctgataa gaatgtagtt ccaacatttt 780
159 aatgcatgtg cttgtcaatt attctgataa aaatgtagtt gagttgaaaa cagacaagta 840
160 caaataaagc acatgtaaat cgtct                                       865
162 <210> SEQ ID NO: 6
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163 <211> LENGTH: 230
164 <212> TYPE: PRT
165 <213> ORGANISM: Zoanthus sp.
167 <400> SEQUENCE: 6
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170 His Met Glu Gly Cys Val Asn Gly His Lys Phe Val Ile Thr Gly Glu
171             20                  25                  30
172 Gly Ile Gly Tyr Pro Phe Lys Gly Lys Gln Thr Ile Asn Leu Cys Val
173          35                  40                  45
174 Ile Glu Gly Gly Pro Leu Pro Phe Ser Glu Asp Ile Leu Ser Ala Gly
175    50                  55                  60
176 Phe Lys Tyr Gly Asp Arg Ile Phe Thr Glu Tyr Pro Gln Asp Ile Val
177 65                  70                  75                  80
178 Asp Tyr Phe Lys Asn Ser Cys Pro Ala Gly Tyr Thr Trp Gly Ser Phe
179                85                  90                  95
180 Leu Phe Glu Asp Gly Ala Val Cys Ile Cys Asn Val Asp Ile Thr Val
181             100                 105                 110
182 Ser Val Lys Glu Asn Cys Ile Tyr His Lys Ser Ile Phe Asn Gly Met
183          115                 120                 125
184 Asn Phe Pro Ala Asp Gly Pro Val Met Lys Lys Met Thr Thr Asn Trp
185    130                 135                 140
186 Glu Ala Ser Cys Glu Lys Ile Met Pro Val Pro Lys Gln Gly Ile Leu
187 145                 150                 155                 160
188 Lys Gly Asp Val Ser Met Tyr Leu Leu Leu Lys Asp Gly Gly Arg Tyr
189             165                 170                 175
190 Arg Cys Gln Phe Asp Thr Val Tyr Lys Ala Lys Ser Val Pro Ser Lys
191             180                 185                 190
192 Met Pro Glu Trp His Phe Ile Gln His Lys Leu Leu Arg Glu Asp Arg
193          195                 200                 205
194 Ser Asp Ala Lys Asn Gln Lys Trp Gln Leu Thr Glu His Ala Ile Ala
195    210                 215                 220
196 Phe Pro Ser Ala Leu Ala
197 225                 230
200 <210> SEQ ID NO: 7
201 <211> LENGTH: 678
202 <212> TYPE: DNA
203 <213> ORGANISM: Discosoma sp
205 <400> SEQUENCE: 7
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207 accgtgaacg gccacgagtt cgagatcgag ggcgagggcg agggccgccc ctacgagggc 120
208 cacaacaccg tgaagctgaa ggtgaccaag ggcggccccc tgcccttcgc ctgggacatc 180
209 ctgtccccc agttccagta cggctccaag gtgtacgtga agcaccccgc cgacatcccc 240
210 gactacaaga agctgtcctt ccccgagggc ttcaagtggg agcgcgtgat gaacttcgag 300
211 gacggcggcg tggtgaccgt gacccaggac tcctccctgc aggacggctg cttcatctac 360
212 aaggtgaagt catcggcgt gaacttcccc tccgacggcc ccgtgatgca gaagaagacc 420
213 atgggctggg aggcctccac cgagcgcctg tacccccgcg acggcgtgct gaagggcgag 480
214 atccacaagg ccctgaagct gaaggacggc ggccactacc tggtggagtt caagtccatc 540
215 tacatggcca agaagcccgt gcagctgccc ggctactact acgtggactc caagctggac 600
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216 atcacctccc acaacgagga ctacaccatc gtggagcagt acgagcgcac cgagggccgc 660
217 caccacctgt tcctgtaa                                        --            678
219 <210> SEQ ID NO: 8
220 <211> LENGTH: 225
221 <212> TYPE: PRT
222 <213> ORGANISM: Discosoma sp.
224 <400> SEQUENCE: 8
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226  1               5                  10                  15
227 Arg Met Glu Gly Thr Val Asn Gly His Glu Phe Glu Ile Glu Gly Glu
228              20                  25                  30
229 Gly Glu Gly Arg Pro Tyr Glu Gly His Asn Thr Val Lys Leu Lys Val
230          35                  40                  45
231 Thr Lys Gly Gly Pro Leu Pro Phe Ala Trp Asp Ile Leu Ser Pro Gln
232      50                  55                  60
233 Phe Gln Tyr Gly Ser Lys Val Tyr Val Lys His Pro Ala Asp Ile Pro
234 65                  70                  75                  80
235 Asp Tyr Lys Lys Leu Ser Phe Pro Glu Gly Phe Lys Trp Glu Arg Val
236                  85                  90                  95
237 Met Asn Phe Glu Asp Gly Gly Val Val Thr Val Thr Gln Asp Ser Ser
238              100                 105                 110
239 Leu Gln Asp Gly Cys Phe Ile Tyr Lys Val Lys Phe Ile Gly Val Asn
240          115                 120                 125
241 Phe Pro Ser Asp Gly Pro Val Met Gln Lys Lys Thr Met Gly Trp Glu
242      130                 135                 140
243 Ala Ser Thr Glu Arg Leu Tyr Pro Arg Asp Gly Val Leu Lys Gly Glu
244 145                 150                 155                 160
245 Ile His Lys Ala Leu Lys Leu Lys Asp Gly Gly His Tyr Leu Val Glu
246                  165                 170                 175
247 Phe Lys Ser Ile Tyr Met Ala Lys Lys Pro Val Gln Leu Pro Gly Tyr
248                  180                 185                 190
249 Tyr Tyr Val Asp Ser Lys Leu Asp Ile Thr Ser His Asn Glu Asp Tyr
250          195                 200                 205
251 Thr Ile Val Glu Gln Tyr Glu Arg Thr Glu Gly Arg His His Leu Phe
252      210                 215                 220
253 Leu
254 225
257 <210> SEQ ID NO: 9
258 <211> LENGTH: 696
259 <212> TYPE: DNA
260 <213> ORGANISM: Anemonia sulcata
262 <400> SEQUENCE: 9
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264 ggccactact tcaagtgtac aggaaaagga gagggcaacc catttgaggg tacgcaggaa 120
265 atgaagatag aggtcatcga aggaggtcca ttgccatttg ccttccacat tttgtcaacg 180
266 agttgtatgt acggtagtaa ggccttcatc aagtatgtgt caggaattcc tgactacttc 240
267 aagcagtctt tccctgaagg ttttacttgg gaaagaacca caacctacga ggatggaggc 300
268 tttcttacag ctcatcagga cacaagccta gatggagatt gcctcgttta caaggtcaag 360
269 attcttggta taattttccc tgctgatggc cccgtgatgc agaacaaagc aggaagatgg 420
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VERIFICATION SUMMARY   DATE: 01/04/2005
PATENT APPLICATION: **US/10/081,864A**   TIME: 12:47:48

Input Set : **D:\seqlist.txt**
Output Set: **N:\CRF4\01042005\J081864A.raw**

L:16 M:270 C: Current Application Number differs, Replaced Current Application No
L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date